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10/524,673	02/11/2005	Sean Mark Dazliel	CL2149USPCT	1439
7590	12/16/2008		EXAMINER	
Gail Dalickas			SASAN, ARADHANA	
E. I. Du Pont De Nemours & Company			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/524,673	DAZLIEL ET AL.	
	Examiner	Art Unit	
	ARADHANA SASAN	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 February 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 11 February 2005 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>8/22/05</u>	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. Claims 1-21 are included in the prosecution.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 8/22/05 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the examiner is considering the information disclosure statement.

See attached copy of PTO-1449.

35 U.S.C. 112, Second Paragraph

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 provides for the use of a coated soy product, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claim 12 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under

35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd. App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Olson et al. (US 3,976,793).

The claimed invention is a process for coating a soy product, the process comprising the steps of: (a) metering a liquid coating material through a flow restrictor; (b) injecting a gas stream through the flow restrictor concurrently with step (a) to (i) atomize the liquid coating material and (ii) create turbulent flow of the gas stream and the atomized liquid coating, wherein the gas stream is optionally heated; and (c) adding a soy product to the region of turbulent flow concurrently with steps (a) and (b), wherein the soy product mixes with the atomized liquid coating material to provide a coated soy product.

Schurr teaches a process for coating a solid particle by "metering a liquid composition comprising a coating material, where the liquid composition is either a solution, a slurry or a melt, into a flow restrictor and injecting a gas stream through the flow restrictor concurrently with the metering of the liquid composition to create a zone of turbulence at the outlet of the flow restrictor, thereby atomizing the liquid composition.

The gas stream is heated prior to injecting it through the flow restrictor. A solid particle is added to the zone of turbulence concurrently with the metering of the liquid composition and the injection of the heated gas to mix the solid particle with the atomized liquid composition. The mixing at the zone of turbulence coats the solid particle with the coating material ... This ... process provide(s) a short residence time, i.e., less than 250 milli-seconds, in the zone of turbulence, which reduces the time and thus the cost of coating particles ... This process provide(s) a mechanism for coating very small or powdery or granular particles which results in a high yield of entirely coated, non-agglomerated particles" (Abstract).

Schurr does not expressly teach a process for coating a soy product.

Olson teaches "a sugar coated ready-to-eat breakfast cereal flakes composed principally of oat and soy flour" (Abstract). The coating "imparts little or no glossiness to the flake and thereby provides a wholesome, more organoleptically acceptable appearance" (Col. 1, lines 30-34). "The relatively dilute syrup coats and impregnates the flake surface" (Col. 2, lines 31-32). "The coating solution is essentially an unsaturated sucrose solution, although salt and flavorings to suit taste may be added in accordance with the skill of the art" (Col. 4, lines 14-17). "A pipe delivering syrup to a nozzle is most preferably employed to spray the coating solution onto the flakes, although a droplet application of syrup may be similarly employed. The means of application are optional and within the skill of the art" (Col. 7, lines 42-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process for coating a solid particle, as suggested by

Schurr, combine it with the process of coating a soy product such as a breakfast cereal, as suggested by Olson, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Olson teaches that the means of application of the coating on the soy product are optional and within the skill of the art (Col. 7, lines 42-46). Therefore, since Schurr teaches a coating process, one with ordinary skill in the art would be motivated to use the coating process for the coating of soy products such as the breakfast cereal taught by Olson.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Regarding instant claims 1 and 13, the steps of the coating process would have been obvious over the steps (including the limitations of steps (a), (b) and (c)) of the coating process taught by Schurr (Abstract). The limitation of the soy product (claim 1) and flour (claim 13) would have been obvious over the breakfast cereal with soy flour as taught by Olson (Abstract).

Regarding instant claims 2 and 14, the limitation of the soy product (claim 2) and soy flour (claim 14) would have been obvious over the breakfast cereal with soy flour as taught by Olson (Abstract).

Regarding instant claims 3 and 15, the limitation of the liquid coating material would have been obvious over the coating solution that is essentially an unsaturated sucrose solution, as taught by Olson (Col. 4, lines 14-17).

Regarding instant claims 4 and 16, the limitation of repeating steps (a) – (c) would have been obvious over the coating process taught by Schurr (Abstract). One with ordinary skill in the art would repeat the coating steps in order to apply multiple layers of coating on the particle during the product of routine experimentation. The repetition of steps is a modifiable parameter based on desired level of coating.

Regarding instant claims 5-7 and 17-18, the coated soy product, the food comprising a coated soy product, the food comprising a coated soy product, the coated flour and the food comprising a coated flour would have been obvious over the coated breakfast cereal with soy flour as taught by Olson (Abstract).

7. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Olson et al. (US 3,976,793) and further in view of Mukerji et al. (US 5,506,209).

The teaching of Schurr and Olson is stated above.

Schurr and Olson do not expressly teach a beverage or an infant formula comprising a coated soy product.

Mukerji teaches a liquid enteral nutritional infant formula with soy protein (Col. 18, claim 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process for coating a solid particle, as suggested by Schurr, combine it with the process of coating a soy product such as a breakfast cereal, as suggested by Olson, further combine it with the liquid nutritional infant formula with soy protein, as suggested by Mukerji, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Schurr teaches that the coated particles are non-agglomerated particles (Abstract). One with ordinary skill in the art would find it advantageous to use such non-agglomerated particles in a beverage or liquid infant formula composition.

Regarding instant claims 8-9, the limitation of the beverage and the infant formula comprising a coated soy product would have been obvious over the coating process taught by Schurr (Abstract), in view of the coated soy cereal taught by Olson (Abstract) and further in view of the liquid nutritional infant formula with soy protein, as taught by Mukerji (Col. 18, claim 4).

8. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Olson et al. (US 3,976,793) and further in view of Pitchon et al. (US 4,371,556).

The teaching of Schurr and Olson is stated above.

Schurr and Olson do not expressly teach a food or an animal feed comprising a coated soy product.

Pitchon teaches soy-containing dog food (Abstract). The process of preparing the soy-containing dog food comprises coating roasted soybeans to improve the palatability (Col. 10, claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process for coating a solid particle, as suggested by Schurr, combine it with the process of coating a soy product such as a breakfast cereal, as suggested by Olson, further combine it with the soy-containing dog food, as suggested by Pitchon, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Pitchon teaches that coating roasted soybeans improves the palatability of the dog food. Therefore, one with ordinary skill in the art would find it advantageous to use the process of coating (Schurr) to improve the palatability of soy-containing dog food (taught by Pitchon).

Regarding instant claims 10-11, the limitation of the pet food and animal feed comprising a coated soy product would have been obvious over the coating process taught by Schurr (Abstract), in view of the coated soy cereal taught by Olson (Abstract) and further in view of the coated roasted soybean in the soybean containing dog food, as taught by Mukerji (Col. 10, claim 1).

9. Claims 12 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Olson et al. (US 3,976,793) and further in view of Campbell et al. (US 4,265,925).

The teaching of Schurr and Olson is stated above.

Schurr and Olson do not expressly teach a baked good or a snack food comprising a coated flour.

Campbell teaches that "bland soy protein concentrate is also desirable for making meat analogs, snack foods, cereals, (and) baked products ..." (Col. 2, lines 4-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process for coating a solid particle, as suggested by Schurr, combine it with the process of coating a soy product such as a breakfast cereal, as suggested by Olson, further combine it with the use of soy protein in making snack foods and baked products, as suggested by Campbell, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Schurr teaches that the coated particles are non-agglomerated particles (Abstract). One with ordinary skill in the art would find it advantageous to use such non-agglomerated particles in a baked good or snack food composition.

Regarding instant claims 19-20, the limitation of the baked good and snack food comprising a coated flour would have been obvious over the coating process taught by Schurr (Abstract), in view of the coated soy flour containing cereal taught by Olson (Abstract) and further in view of the use of soy protein in making snack foods and baked products, as suggested by Campbell (Col. 2, lines 4-8).

Regarding instant claims 12 and 21, the use of a coated soy product (and a coated soy flour) as a food ingredient would have been obvious over the use of soy

protein in making snack foods and baked products, as suggested by Campbell (Col. 2, lines 4-8).

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1, 3-4, 13 and 15-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/476,199 ('199 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because while instant claims are drawn to a process for coating a soy product, claims of '199 are drawn to a process for dry coating a food particle. It would have been obvious to one of ordinary skill in the art to coat a soy product using the process disclosed in '199 because a soy product is a food. Although instant claims do not expressly recite dry

coating, the terms "coating" and "dry coating" are used interchangeably, as disclosed in the specification of '199 (Page 2, [0024]). Therefore, the coating of the soy product would have been obvious to one of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claims 1, 3-4, 13 and 15-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 and 8-9 of copending Application No. 10/520,539 ('539 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because while instant claims are drawn to a process for coating a soy product, claims of '539 are drawn to a process for encapsulating a food particle. It would have been obvious to one of ordinary skill in the art to use the encapsulating process of '539 to encapsulate or coat a soy product because a soy product is a food ingredient.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1, 3-4, 13 and 15-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-4, 6, 8-9 and 15-16 of copending Application No. 10/521,369 ('369 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because while instant claims are drawn to a process for coating a soy product, claims of '369 are drawn to a process for coating a pharmaceutical particle. It would have been obvious to one of ordinary skill in the art to use the coating process of

'369 to encapsulate or coat a soy product because of the advantages conferred on the soy product after coating (such as enhanced stability, longer shelf life).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Claims 1 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,015,773 ('773 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because while instant claims are drawn to a process for coating a soy product, claims of '773 are drawn to a process for coating a solid crop protection particle. It would have been obvious to one of ordinary skill in the art to use the coating process of '773 to encapsulate or coat a soy product because of the advantages conferred on the soy product after coating (such as enhanced stability, longer shelf life).

15. Claims 1-4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 7,163,708 ('708 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other because while instant claims are drawn to a process for coating a soy product, claims of '708 are drawn to a process for dry coating a food particle. It would have been obvious to one of ordinary skill in the art to coat a soy product using the process disclosed in '708 because a soy product is a food. Although instant claims do not expressly recite dry coating, the terms "coating" and "dry coating" are used interchangeably, as disclosed in the specification of '708 (Col. 3, lines 27-28).

Therefore, the coating of the soy product would have been obvious to one of ordinary skill in the art.

Conclusion

16. No claims are allowed.
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Aradhana Sasan/

Examiner, Art Unit 1615

/Michael P Woodward/

Supervisory Patent Examiner, Art Unit

1615

Application/Control Number: 10/524,673
Art Unit: 1615

Page 14